

## Correspondence.

## GLASS PIPES.

SIR,—At the late meeting of the English Agricultural Society at Shrewsbury, I noticed with interest some specimens of glass pipes, introduced there by Mr. Freeman Roe, of London. This invention strongly recommends itself to notice and approbation, by its securing the cleanliness and salubrity of the water in its conveyance from its source, whilst the cost of manufacture will not be much, and its durability will be lasting. It is well known that all natural waters contain in solution bicarbonates of lime, in greater or less proportions, which act in two manners injuriously in the ordinary pipes. The evaporation of a portion of carbonic acid will precipitate the insoluble carbonate of lime or chalk, well known as a deposit in pipes and the fur in tea-kettles, which obstructs and finally closes up the passage, whether in lead or iron. The carbonates of lead and iron are also formed at the expense of the metals, the former of which has been proved to be highly injurious to health, whilst the latter, though less so, produces, by its astringency, bad effects upon the human constitution, and at the same time, from the formation of these soluble salts, the metals rapidly corrode and wear away. Where water is required for vegetation, the presence of the smallest quantity of iron is injurious, whilst its brackish taste renders it unfit for domestic appliances. Now, as points are necessary for the first crystallization, from the uniformity of surface in glass, no deposition can take place in pipes formed of this material as in those of lead or iron; nor can the material be acted upon chemically, so that whilst the pipes are kept clean, the water is insured in the same condition of purity as at its source. The abolition of the duty on glass will doubtless lead to its introduction in many other purposes useful and ornamental, as vases, basins, and other parts of decorative fountains, where the transparency of the material would have an interesting effect, much above that produced by the opacity of the matter at present employed.

I, Finsbury-square.

A. BOUTH.

## BUILDERS' ESTIMATES.

SIR,—Knowing you to be an advocate for correcting abuses, I trust you will excuse the liberty I take in addressing you relative to certain works which were to be executed and are now in progress at an institution belonging to the united parishes of St. Giles and Bloomsbury; and for which I, among others, was requested to estimate, and received a letter stating "the trustees hoped to be favoured with a tender from me for the works, which were to be divided into two classes, one containing bricklayer, plasterer, carpenter, smith, &c.; the other the plumber, glazier, and painter, so as to form two estimates, distinct and separate" (these are their own words).

I accordingly sent my estimates at the time and place appointed, where four of the trustees met the surveyor for the purpose of opening and deciding on the tenders which were to be adopted. My tender for the principal of the works, viz., the bricklayer, plasterer, carpenter, and smith's work, &c., was the lowest of any, and another tradesman was lowest in the painting, &c.; which estimates, had they been accepted, would have been "a saving to the institution of 3*l*. 10*s*." and honourable and straightforward on the part of those assembled. But no, the surveyor advises the trustees to accept the tender of another party (one of his own neighbours), "because," as he says "he was lowest on the gross amount;" and on being asked for an explanation, said the trustees did not bind themselves to divide the works. Then why have requested two "distinct and separate estimates?"

Here I beg to state that there were similar works executed last year at the same institution, and under the same surveyor, on which occasion they divided even the plumbing from the painting, which invariably go together as a matter of course. Thinking I was dealing with honourable men, I did not make a question about the division of the works previous to forwarding my tender, which perhaps I ought to have done, but shall be more cautious for the future, and hope my brother builders

will be on their guard also against such injustice.

Hoping you will find space in your valuable journal for this,—I am, Sir, &c.,

J. S., Junr.

Tottenham Court-road, 28th July, 1845.

## FIRE-PROOF CEILINGS.

SIR,—My attention being directed by a letter in THE BUILDER to a project for diminishing the combustibility of houses by the substitution of iron for wooden lathing, the idea of substituting slates "for partitions, ceilings," &c., instead of laths of any description, presented itself to my mind. I accordingly tried the experiment on a small scale, and found it to answer exceeding well. I fixed some scantlings together, and nailed the slates to them, allowing a proper space between each slate. I likewise cut slits in each slate about three inches long, and three-eighths of an inch wide, thus: each row being about four inches apart. I, by this means, secured the perfect keying of the lime. I then laid on two thin coats of plaster, both of them not being more than half an inch thick. After allowing the plaster to dry properly, I applied a fire of dry fir shavings directly below it, for the space of a quarter of an hour, the heat and flame from which were exceedingly intense; some of the slates were merely a little cracked at the edges, where they were not well covered with lime. The difference of expense between slates and wood laths would not be considerable, and buildings might by this simple and cheap means be rendered almost fire-proof. I perceive a similar idea has struck the mind of your Kensington correspondent.—I am, Sir, &c.,

Hartlepool, Aug. 2nd.

J. R.

## Miscellaneous.

DECORATIVE ART SOCIETY.—On Wednesday, the 30th ult., "the consideration of Geometrical figures in the foundation of graceful outline," was resumed. The elements of spiral, waved, and serpentine lines, were discussed with the usual methods of producing them, and as these lines are, in practice, generally adjusted and regulated by the hand and eye of the artist and workman, it was felt that a mechanical system would be of great utility and importance, provided simplicity could be combined with the process. After some remarks on the properties of the Greek spiral, such as admitting a tangent to be drawn at right angles to a radial perpendicular, and having the convolutions at a certain uniform ratio (as evidenced by examples in the British Museum and in Stuart's works), distinctly different in principle from the logarithmic or any other spiral, attention was devoted to Mr. Jopling's explanations of his septenary system of generating curves by continued motion. This system had been brought before the society at a previous meeting, and was received with some attention by the members, but as only one of the seven divisions had been published by the author in an extended form, its application to the lines under consideration was novel and strikingly illustrative of its merits; and from the courteous and liberal manner in which Mr. Jopling gave his valuable information, it was agreed by several of the members to endeavour to apply it experimentally in their respective occupations, as far as their limited acquaintance with it would enable them to do so, and to report the results to a future meeting. The drawings of serial conchoid, cardioid, and other curves produced by the above system, led to the supposition that new combinations of pleasing character (varied as in diapering, engine-turning, &c.) might be derived and applied economically to decorative purposes in manufactures. This being the last meeting of this season, the chairman congratulated the members on the very satisfactory nature of the past meetings, as yielding to those of few (if any) other societies in interest; and in adjourning the meetings for two months, he felt much pleasure in being able to state, that several papers were in preparation likely to sustain the reputation of the society.

EXTENSION OF THE REGENT'S PARK.—During the past week, workmen have been employed, by order of the Commissioners of Woods and Forests, in erecting a fence round the land (including Primrose-hill) on the north side of the Regent's Park, recently belonging to the Euston estate, but exchanged with the commissioners for other lands, for the purpose of increasing the Regent's Park, and securing a public thoroughfare to the top of Primrose-hill. The hill, and land adjoining it, from the suspension-bridge over the Regent's Canal, comprising 150 acres, will be converted into plantations, serpentine, and other gravel walks, and small pieces of ornamental waters, the whole of which when completed will be thrown open to the public.

ART-UNION PRIZE ANNUAL.—We have before us the first volume of this work, published by Sprigg, of Great Russell-street, and intended to present each year engraved representations of every work of art purchased by the prizeholders in the London Art-Union. We shall notice it at greater length next week; and in the meantime recommend it to the subscribers and all interested in art.

NEW POWDER MAGAZINE.—The purchase of the Kintbury estate by the Government, as the site of the new powder magazine, has been completed for 23,000*l*. The works will be commenced forthwith.

## NOTICES OF CONTRACTS.

We are compelled by the interference of the Stamp Office to omit the names of the parties to whom tenders, &c., are to be addressed. For the convenience of our readers, however, they are entered in a book, and may be seen on application at the office of "The Builder," 3, York-street, Covent-garden.

For the executing the skeleton of Glenorthy Castle, County of Limerick, Ireland.

For Building a New Union Workhouse, to contain 1180 Persons, for the Guardians of the Clifton Union.

For the complete restoration of two Windows on the south-side of St. Thomas's Church, Salisbury; also, for Cleaning and Whitewashing the interior of the same Church.

For the execution of Works on the Leeds and Thirsk Railway.

For Coupled Locomotive Engine and four-wheeled Tender, to contain 700 gallons, for the Manchester and Birmingham Railway Company.

For the execution of that portion of the Newcastle and Berwick Railway, extending from the Newcastle and North Shields Railway to Netherton, being a distance of about 12½ miles.

For the execution of several lengths of Earthwork on the Aberdeen Railway. There are 5 separate Contracts, varying in lengths from 3½ miles to 4½ miles.

For the erection of a Wesleyan Proprietary College at Taunton.

For the supply of 20,000 Larch, Oak, or Fir Sleepers, and Fencing for 50½ miles, or any part thereof, for the Ipswich and Bury St. Edmund's Railway Company.

For the erection of a new Village Infirmary at Brampton, near Huntingdon, for the Lady Olivia Sparrow.

For erecting a Convalescent Ward, Nurse's Room, and a Wash-house, adjoining the Infirmary of the Sudbury Union.

For Building 700 feet of Sewer in Lower Garden-street, Westminster, for the Trustees of Tothall Fields.

For the Construction of the Gas Works at Wells, in the county of Norfolk, with all necessary apparatus.

For a supply of eighty fathoms of Yellow Deal Ends and Boards, in equal proportions, of the best description, to the Trustees of the Parish of Islington, Middlesex.

For a supply of fifty fathoms of the best Yellow Deal Ends, to be worked direct from the ship, to the Directors and Guardians of the Poor in the Parish of St. Marylebone.

For the execution of the works on the Nottingham and Lincoln Railway, in two parts: 1 from Nottingham to Newark, being a distance of 17½ miles. 2 from Newark to Lincoln, being a distance of 15½ miles.

For the construction of the entire Line of Railway through the County of Anglesa, for the Chester and Holyhead Railway Company. It is divided into four separate Contracts, being respectively in lengths 5 miles and 28 chains, 5 miles and 26 chains, 7 miles and 55 chains, and 3 miles and 60 chains.

For the execution of the several works required in the Tynemouth Extension Railway, comprising about 740 yards of Tunneling, with Earthwork, &c. The length of the extension is one mile.